

28



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/751,289 | 12/29/2000 | Alan S. Chapman | 57983.000032 | 8904 |

7590 10/05/2005
Thomas E. Anderson
Hunton & Williams
1900 K Street, N.W.
Washington, DC 20006-1109

EXAMINER

SALAD, ABDULLAHI ELMI

ART UNIT PAPER NUMBER

2157

DATE MAILED: 10/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

7

Office Action Summary

Application No.

09/751,289

Applicant(s)

CHAPMAN ET AL.

Examiner

Salad E. Abdullahi

Art Unit

2157

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-7,9-19 and 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-2, 4-7, 9-19 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Response

1. The response filed on 7/20/2005 has been received and made of record.
2. Applicant's argument filed on 7/20/2005 with respect to claims 1-2, 4-7, 9-19 and 21 have been fully considered but are not persuasive for the following reasons
3. applicant alleges the references fail to disclose "a descriptor that enables the at least one node to identify an attribute of the content". Examiner respectfully disagrees because Gourlay discloses a content based web site 250, such as contentprovider.com, may provide various graphics, web pages, and other files as content to be distributed to various users throughout the Internet. For purposes of this example, the url www.contentprovider.com/logos/logo.gif is used to represent one of the content files contentprovider.com provides. Version 2 of this logo may be already stored in caches throughout the network. Furthermore, content descriptor is like content attribute such as the content tag or version/serial number of the content as taught by Gourlay (see fig.6).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

Art Unit: 2157

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 1-2, 4-7 and 9-13, are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakeyama U. S. Patent No. 6,542,468 [hereinafter Hatakeyama] in view of Gourlay U.S. Patent No.6, 850,980 [hereinafter Gourlay].

As per claim 1, Hatakeyama discloses a method for delivering content over a network having at least one requesting endpoint and at least one node, wherein the at least one node stores content, the method comprising:

launching a request for content from the at least one requesting end point (transmitting request to service provider) (see col. 9, lines 10-15);

propagating the request over the network to the at least one node(see col. 9, lines 10-15 and col. 10, lines 6-10);

leaving a trail of the request at the at least one node(storing or recording the path of the request at a node) (see fig. 4b and col. 9, lines 6—31 and col. 13, lines 23-50); and

when content matching the request is located, returning a copy of the content to the at least one requesting endpoint over the trail of the request (col. 9, lines 6—31 and col. 13, lines 23-50).

Art Unit: 2157

Hatakeyama does not explicitly disclose regarding:, wherein the content further comprises a descriptor that enables the at least one node to identify an attribute of the content, and the step of launching a request further comprises: launching the request with a request payload containing one or more instructions on what to locate in the descriptor.

Gourlay discloses content routing system for delivering a content over a network, wherein the content further comprises a descriptor that enables the at least one node to identify an attribute of the content, and the step of launching a request further comprises: launching the request with a request payload containing one or more instructions on what to locate in the descriptor (see figs. 3 and 4 and col. 3, line 50 to col. 4 line 21). Therefore, it would have been obvious to having ordinary skill in the art at the time of the invention to incorporate the teaching of Gourlay into the system of Hatakeyama such as launching the request with a request payload (i.e., content identifier) containing one or more instructions on what to locate in the descriptor, thus the speed of accessing any particular piece of content has been greatly enhanced.

As per claim 2, Hatakeyama discloses the method of claim 1, wherein the network comprises at least one other endpoint and the method further comprises: propagating the request over the network to the at least one other endpoint; and leaving a trail of the request at the at least one other endpoint (col. 13, lines 23-50).

As per claims 4-5, Gourlay the method of claim 1, further comprising:

Art Unit: 2157

launching the request with a persistence indicator that indicates a duration for which the request is to be preserved at the at least one node (see figs. 3 and 4 and col. 3, line 50 to col. 4 line 21).

As per claim 6, Gourlay discloses the method of claim 1, wherein the at least one node further comprises a receiver for receiving the request and identifying an adjacent node from which the request is received, and the method further comprises:
comparing the request payload to the descriptor of the content stored at the at least one node; and when the request payload matches the descriptor, forwarding the content with the matching descriptor to the adjacent node (see figs. 3 and 4 and col. 3, line 50 to col. 4 line 21).

As per claim 7, Hatakeyama discloses a method for delivering content over a network having at least one requesting endpoint and at least one node, wherein the at least one node stores content, the method comprising:
launching a request for content from the at least one requesting end point (transmitting request to service provider) (see col. 9, lines 10-15);
propagating the request over the network to the at least one node(see col. 9, lines 10-15 and col. 10, lines 6-10);
leaving a trail of the request at the at least one node(storing or recording the path of the request at a node) (see fig. 4b and col. 9, lines 6—31 and col. 13, lines 23-50); and

Art Unit: 2157

when content matching the request is located, returning a copy of the content to the at least one requesting endpoint over the trail of the request (col. 9, lines 6—31 and col. 13, lines 23-50).

Hatakeyama does not explicitly disclose regarding: wherein the content further comprises a descriptor that enables the at least one node to identify an attribute of the content, and the step of launching a request further comprises: launching the request with a request payload containing one or more instructions on what to locate in the descriptor.

Gourlay discloses content routing system for delivering a content over a network, wherein the content further comprises a descriptor that enables the at least one node to identify an attribute of the content, and the step of launching a request further comprises: launching the request with a request payload containing one or more instructions on what to locate in the descriptor (see figs. 3 and 4 and col. 3, line 50 to col. 4 line 21). Therefore, it would have been obvious to having ordinary skill in the art at the time of the invention to incorporate the teaching of Gourlay into the system of Hatakeyama such as launching the request with a request payload (i.e., content identifier) containing one or more instructions on what to locate in the descriptor, thus the speed of accessing any particular piece of content has been greatly enhanced.

As per claims 9-10, Gourlay the method of claim 7, further comprising:

launching the request with a persistence indicator that indicates a duration

Art Unit: 2157

for which the request is to be preserved at the at least one node (see figs. 3 and 4 and col. 3, line 50 to col. 4 line 21).

As per claim 11, Gourlay discloses the method of claim 7, wherein the at least one node further comprises a receiver for receiving the request and identifying an adjacent node from which the request is received, and the method further comprises:
comparing the request payload to the descriptor of the content stored at the at least one node; and when the request payload matches the descriptor, forwarding the content with the matching descriptor to the adjacent node (see figs. 3 and 4 and col. 3, line 50 to col. 4 line 21).

As per claim 12, Hatakeyama discloses a method for delivering content over a network having at least one requesting endpoint and at least one node, wherein the at least one node stores content, the method comprising:
launching a request for content from the at least one requesting end point (transmitting request to service provider) (see col. 9, lines 10-15);
propagating the request over the network to the at least one node(see col. 9, lines 10-15 and col. 10, lines 6-10);
leaving a trail of the request at the at least one node(storing or recording the path of the request at a node) (see fig. 4b and col. 9, lines 6—31 and col. 13, lines 23-50); and

Art Unit: 2157

when content matching the request is located, returning a copy of the content to the at least one requesting endpoint over the trail of the request (col. 9, lines 6—31 and col. 13, lines 23-50).

Hatakeyama does not explicitly disclose regarding:, wherein the content further comprises a descriptor that enables the at least one node to identify an attribute of the content, and the step of launching a request further comprises: launching the request with a request payload containing one or more instructions on what to locate in the descriptor.

Gourlay discloses content routing system for delivering a content over a network, wherein the content further comprises a descriptor that enables the at least one node to identify an attribute of the content, and the step of launching a request further comprises: launching the request with a request payload containing one or more instructions on what to locate in the descriptor (see figs. 3 and 4 and col. 3, line 50 to col. 4 line 21). Therefore, it would have been obvious to having ordinary skill in the art at the time of the invention to incorporate the teaching of Gourlay into the system of Hatakeyama such as launching the request with a request payload (i.e., content identifier) containing one or more instructions on what to locate in the descriptor, thus the speed of accessing any particular piece of content has been greatly enhanced.

As per claim 13, Hatakeyama discloses a method for delivering content over a network having at least one requesting endpoint and at least one node, wherein the at least one node stores content, the method comprising:

Art Unit: 2157

launching a request for content from the at least one requesting end point (transmitting request to service provider) (see col. 9, lines 10-15);

propagating the request over the network to the at least one node(see col. 9, lines 10-15 and col. 10, lines 6-10);

leaving a trail of the request at the at least one node(storing or recording the path of the request at a node) (see fig. 4b and col. 9, lines 6—31 and col. 13, lines 23-50); and

when content matching the request is located, returning a copy of the content to the at least one requesting endpoint over the trail of the request (col. 9, lines 6—31 and col. 13, lines 23-50).

Hatakeyama does not explicitly disclose regarding:, wherein the content further comprises a descriptor that enables the at least one node to identify an attribute of the content, and the step of launching a request further comprises: launching the request with a request payload containing one or more instructions on what to locate in the descriptor.

Gourlay discloses content routing system for delivering a content over a network, wherein the content further comprises a descriptor that enables the at least one node to identify an attribute of the content, and the step of launching a request further comprises: launching the request with a request payload containing one or more instructions on what to locate in the descriptor (see figs. 3 and 4 and col. 3, line 50 to col. 4 line 21). Therefore, it would have been obvious to having ordinary skill in the art at the time of the invention to incorporate the teaching of Gourlay into the system of Hatakeyama such as launching the request with a request payload (i.e., content

Art Unit: 2157

identifier) containing one or more instructions on what to locate in the descriptor, thus the speed of accessing any particular piece of content has been greatly enhanced.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 14-19 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hatakeyama and Gourlay in view of Chen U.S. Patent No. 6,567,380[hereinafter Chen].

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Art Unit: 2157

As per claim 14, Hatakeyama a method for transferring content over a network comprising one or more nodes wherein the one or more nodes are enabled to route messages related to the transfer of content, the method comprising the steps of: transmitting a request registration message when requesting content from the one or more nodes, wherein the request registration message advertises (i.e., notifies) to the one or more nodes an interest in locating a particular content (i.e., transmitting request of desired content to other nodes) (see col. 9, lines 10-15 and col. 13, lines 36-50); transmitting a content deliver message when the particular content requested is located at the one or more nodes(see col. 9, lines 10-15 and col. 13, lines 36-50); and transferring the particular content requested or a copy of the particular content requested toward the one or more nodes from which the request registration message was transmitted (col. 9, lines 6-31 and col. 13, lines 23-50).

Hatakeyama does not explicitly disclose regarding:, wherein the content further comprises a descriptor that enables the at least one node to identify an attribute of the content, and the step of launching a request further comprises: launching the request with a request payload containing one or more instructions on what to locate in the descriptor.

Gourlay discloses content routing system for delivering a content over a network, wherein the content further comprises a descriptor that enables the at least one node to identify an attribute of the content, and the step of launching a request further comprises: launching the request with a request payload containing one or more instructions on what to locate in the descriptor (see figs. 3 and 4 and col. 3, line 50 to

Art Unit: 2157

col. 4 line 21). Therefore, it would have been obvious to having ordinary skill in the art at the time of the invention to incorporate the teaching of Gourlay into the system of Hatakeyama such as launching the request with a request payload (i.e., content identifier) containing one or more instructions on what to locate in the descriptor, thus the speed of accessing any particular piece of content has been greatly enhanced.

Hatakeyama and Gourlay are silent regarding:

transmitting a content registration message when new content is available at the one or more nodes, wherein the content registration message advertises to the one or more nodes that the new content is available.

Chen, discloses a system for propagating of routing update messages to neighboring nodes including transmitting a content registration message when new content is available at the one or more nodes, wherein the content registration message (i.e., transmitting content advertisement message to neighboring nodes when the content of the routing changes (see the abstract and col. 5, lines 41-51). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate the Chen transmitting a content registration message when new content is available at the one or more nodes, wherein the content registration message advertises to the one or more nodes that the new content is available into the combined system Hatakeyama and Gourlay in order to reduce repetitive request message by ensuring nodes transmit notification messages when new content is available, thus reducing bandwidth utilization.

Art Unit: 2157

As per claim 15, Chen discloses the method of claim 14, wherein the step of transmitting a content registration message further comprises:
propagating the content registration message to the one or more nodes (see col. 5, lines 41-60); and
building a routing table entry at the one or more nodes using the content registration message (see col. 5, lines 41-60).

As per claim 16, Chen discloses the method of claim 14, wherein the step of transmitting a content registration message further comprises:
propagating the request registration message to the one or more nodes (see col. 5, lines 41-60); and
building a routing table entry at the one or more nodes using the request registration message (see fig.7 col. 5, lines 6, lines 10-33).

As per claim 17, Chen discloses the method of claim 14, wherein the step of transmitting a request registration message further comprises: creating a request registration message trail (i.e., creating request message path) (see fig. 5 and col. 6, lines 50-65).

As per claim 18, Chen discloses the method of claim 17, wherein the one or more nodes are enabled to store messages and wherein the step of creating a request registration message trail further comprises: storing a copy of the request registration

Art Unit: 2157

message at each of the one or more nodes that route the request registration message (see fig. 5 and col. 6, lines 50-65).

As per claim 19, Chen discloses the method of claim 17, wherein the step of transferring the particular content requested or a copy of the particular content requested toward the one or more nodes from which the request registration message was transmitted further comprises: routing the particular content requested or a copy of the particular content requested along a path marked by the request registration message trail (see fig. 5 and col. 6, lines 50-65).

As per claim 21 Gourlay discloses disclose the method of claim 14, further comprising: balancing the network load for transferring content by storing copies of content at the one or more nodes(see fig. 11 and col. 7, lines 16-33).

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 2157


the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Salad E. Abdullahi whose telephone number is 571-272-4009. The examiner can normally be reached on 8:30 - 5:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 571-272-4001. The fax phone number for the organization where this application or proceeding is assigned is **571-273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Abdullahi Salad
Primary Examiner
10/1/2005